

A Study on Infection Control Measure in Operation Theatre among Staff Nurses at KMCT Hospital , Calicut Kerala

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ABSTRACT

A quality assurance committee under the hospital should be formed and they should inspect the operation theater twice in a week or monthly to assess the practices of the staff nurses in operation theater as well as the hygiene of the operation theater. A protocol should be maintain theater set up strict aseptic techniques sterilization techniques for each surgeries replacement of the article cleaning and washing ,fumigation etc. every weekend a culture swab should be taken from the operation theater to make sure that theater is free from infection. A daily register should be maintained in operation theater to observe the occurrence of any surgical infections that is occurred after surgery. This similar study can be conducted on a large sample. A comparative study can be carried out among the nurses working in government and private hospitals regarding their knowledge infection control in operation theater.

1. INTRODUCTION

Humanity has been plagued with infection diseases since the beginning of limit. It is no surprise that a fear of infection is deeply rooted in the human consciousness. In health care facilities people are exposed to greater number of infection agent than they normally are in their own homes and communities. Many infections develop from the health care system after admission to the hospital or during and after any surgical procedures such infections are known as hospital acquired infectious (HAI) or nosocomial infectious. The term nosocomial is derived from two Greek words- 'NO SOS' meaning illness or disease and 'KOMEIO' to take care of Each hospital has many procedures and policies which attempt to reduce the chance of hospital infections but the extent to which these policies are effectively and consistently caused out varies from hospital to hospital and in the different areas of the same hospital.

2. STATEMENT OF THE PROBLEM

Assessment of knowledge and practice on infection control measures in Operation Theater among staff nurses at KMCT HOSPITAL, MANASSERY CALICUT.

3. OBJECTIVES OF THE STUDY

- A study on knowledge of staff nurses on infection control in operation theater
- To find out the practice of infection control in operation Theater.

4. RESEARCH METHODOLOGY

The present study intends to study the knowledge and practice of staff nurses on infection control measures among staff nurses at KMCT Hospital Manassery.

The research approach adopted for the study is the descriptive survey method helps the investigation to assess the knowledge and practice of staff nurse on infection control in Operation Theater by using a structured questionnaire.

RESEARCH DESIGN

A research work will be successful, only with a sound research design .The research design for the purpose of the study is experimental design.

5. METHODS OF DATA COLLECTION

PRIMARY DATA

Primary data collection was mainly done through questionnaires. The respondents were approached personally and were requested to fill up the questionnaire.

SECONDARY DATA

Secondary data was collected from Hospital records, Internet, and books.

POPULATION

The population refers to the entire set of individuals or objects that possess the specific characteristics that the researchers intended in studying.

In this study the population referred to all the staff nurses more than one years of experience working in KMCT Hospital Manassery.

SAMPLING

The sample consist of 200 staff nurses, having more than one years of experience posted in different department KMCT Hospital.

SAMPLING FRAME

The study has been carried out in KMCT Hospital Manssery.

ANALYSIS OF DATA

Data are analyzed through analytical statistics using percentage analysis and graphical analysis,

6. REVIEW OF LITERATURE

The phrase” Literature Review ”refers to the activities involved in identifying and searching for information on a topic and evolving a comprehensive idea of it (Polit and Hunglor).

7. INFECTION

Stevenson (2004) suggested that surveillance for hospital acquired infection has been clearly established as the key element in all infection control programmes. He conducted a study in the USA, in six long term facilities in those geographic proximity and with more or less similar patient population. The survey in each facility was made by a licensed nurse under the supervision of a trained person in infection control program. The data consisted of 3,28,065 resident days of care during 30 months and the findings showed a mean rate of 3.82 infection person 100 resident days of care. The infection in respect of specific categories were as follows-1.15% wound infections, 1.15% respiratory tract infection, 0.06% blood stream infection and 0.09% had unexplained febrile illness.

Orret Brooks (2005) concluded that strict adherence to proper infection control practices such as maintaining hygiene and improving facilities and crucial steps in preventing cross infection in the operation theater. They conducted a retrospective study to assess the incidence rate of infection in operation theater at a rural government hospital at London for a period of four years. The study revealed that 42% post operative wound infections, 26.8% respiratory infections and 13.2% blood stream infection.

Emmerson (2006) conducted a second national prevalence survey in the United Kingdom and Republic Ireland and stated that the prevalence to surgical wound infection is 10.7% and the skin with a susceptibility rate of 22.9%.

Gold Rick and Larson (2006) conducted a pilot study to assess the viability of infection control programmes in long term care facilities inviting Responses to an infection surveillance and control questionnaire from 123 skilled nursing staffs. The findings show that the infection surveillance and control questionnaire is a reliable instrument to assess infection control programme.

A collaborative study (2007) hospital infection prevalence survey under the auspices of the world health organization reported that the overall incidents of post operative infection in Indian ranges between 10-25% (cited by Rasika 2007)

Donowitz (2007) in his study on the incidence rate of surgical wound infection consisted 24% of all hospital acquired infections.

Rasika (2009) conducted a study to the knowledge and attitude of nurses in preventing infection in operation theater at Jamia Hamdard. The sample consists of 25 staff nurses working in different departments. The data was collected using a structured questionnaire. The study finding shows that 56% of the nurses has adequate knowledge in prevention and control of infection in operation theater. The study finding showed that knowledge and understanding can give immediate dividend by way of reduction in the incidence of hospital infection.

Gould (2009) discussed the question whether nurses with an understanding of theoretical principles of microbiology knew more about the clinical aspects of infection control than those without it. Relevant data were collected from the staff nurses (n=130) working in then ICU, Surgical and medical wards and operation theater in two hospitals UK; one insisting rigidly on academic competence and the other without it.

The results showed that 70% subjects could not perform satisfactorily for want of adequate knowledge of microbiology to understand the theoretical principles underlying infection control.

Horton (2009) conducted a study in staff nurses at UK on knowledge of infection in operation theater

KNOWLEDGE SCORE OF STAFF NURSES ON INFECTION CONTROL IN OPERATION THEATER

FREQUENCY OF CORRECT RESPONSES FOR EACH TEST ITEM (N=200)

TEST ITEM	FREQUENCY	%
Definition of Infection	175	75
Cross Infection	100	50
Dis Infection	25	12.5
Most of effective method sterilization by heat	20	10
Effective method for preventing the spread of infection	50	25

TABLE NO 1

From table 6 it is evident that 75%of the samples had correct Reponses on item 1 and item 3 and 4 had poor responses

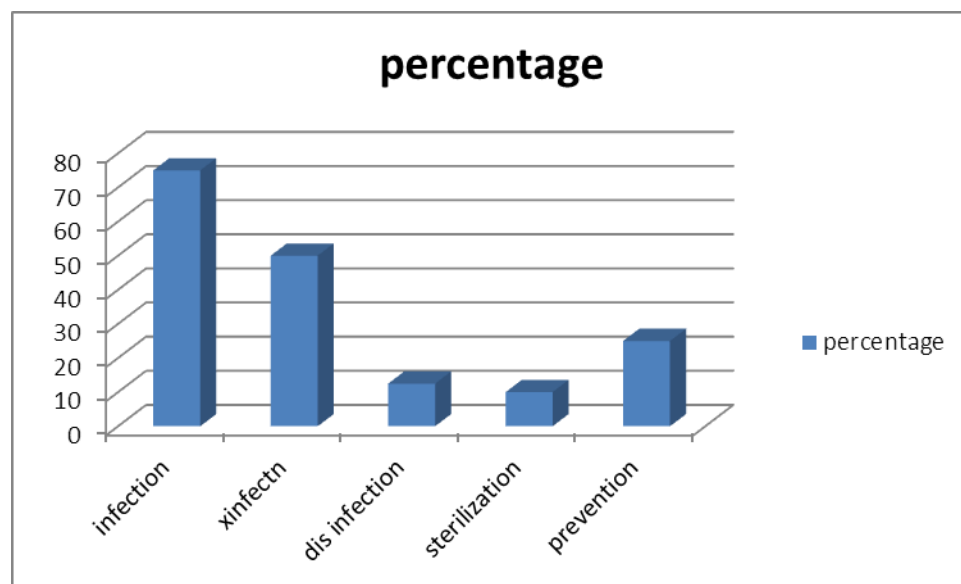


FIGURE 1

From the above figure 6 we can say that about 75% of the staff nurses correct knowledge about infection and 50% of them having correct knowledge of cross infection . most of them have poor knowledge about sterilization method.

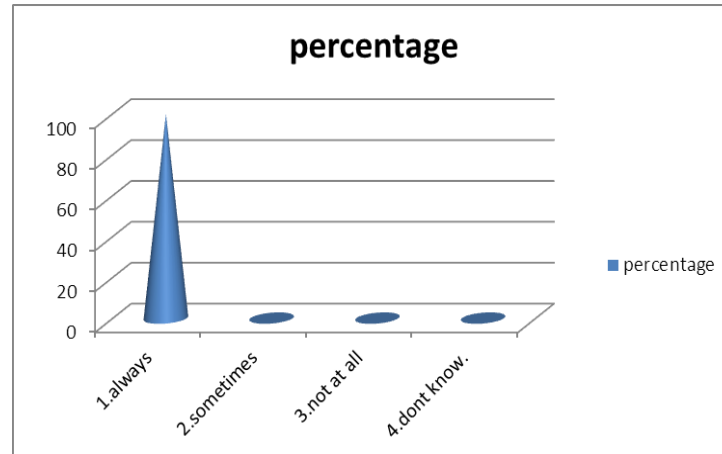
ASSESSMENT OF REPORTED PRACTICE OF STAFF NURSES ON INFECTION CONTROL

PRACTICE	FREQUENCY	%
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1.always	200	100
2.sometimes	0	0
3.not at all	0	0
4.dont know.	0	0

TABLE NO 2

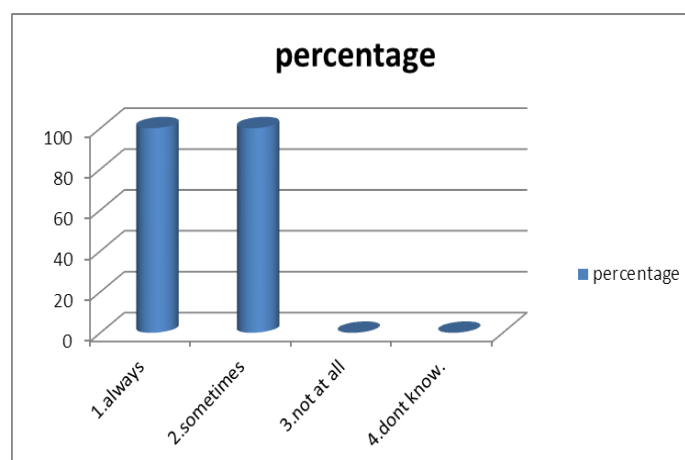
SHOWS THAT 100% OF THE SAMPLE PRACTICING GENERAL HAND WASHING BEFORE DOING ANY PROCEDURE.



ASSESSMENT OF REPORTED PRACTICE OF SURGICAL HAND WASHING BEFORE DOING STERILE PROCEDURE

Practice	Frequency	%
1.always	100	50
2.sometimes	100	50
3.not at all	0	0
4.dont know.	0	0

SHOWS THAT 50% OF THE SAMPLES FOLLOWING CORRECT TECHNIQUES BEFORE DOING THE STERILE PROCEDURE

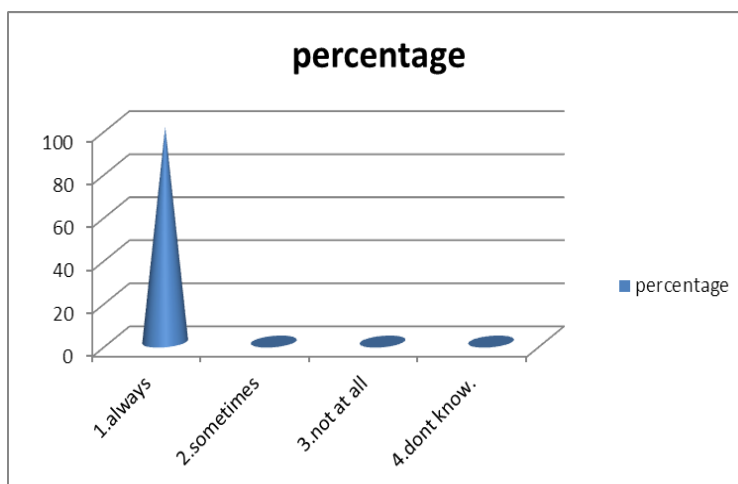


ASSESSMENT OF REPORTED PRACTICE OF CHANGING GLOVES IN SURGERY

PRACTICE	FREQUENCY	%
1.always	200	100
2.sometimes	0	0
3.not at all	0	0
4.dont know	0	0

TABLE NO 3

SHOWS THAT 100% OF THE SAMPLES FOLLOWING CHANGING GLOVES IN SURGERY

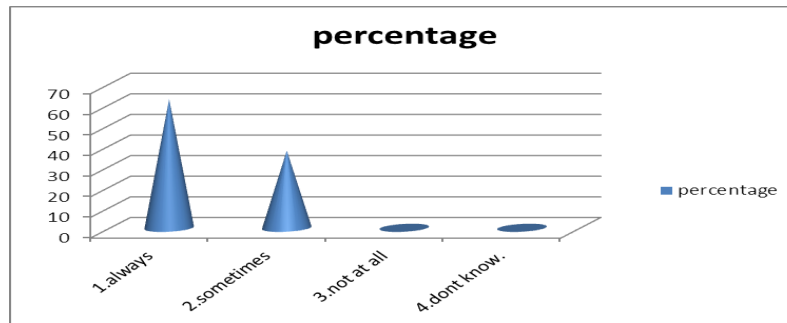


ASSESSMENT OF REPORTED PRACTICE OF PROPER TECHNIQUE IN WEARING GLOVES AND GOWNS

PRACTICE	FREQUENCY	%
1.always	145	72.5
2.sometimes	55	27.5
3.not at all	0	0
4.dont know.	0	0

TABLE NO 4

SHOWS THAT 72.5% OF THE SAMPLE WERE PRACTICING PROPER TECHNIQUE IN WEARING GLOVES AND GOWNS



8. FINDINGS OF THE STUDY

Section 1

Demographic Characteristics

Major finding were presented below

Gender-majority(75%) of the staff nurses are female.

Age- majority (50%) of the staff nurses belongs between the age of 26 to 35.

Professional education -majority (62-5%)of the staff nurses were diploma holders in nursing.

Nature of appointment –majority(60%) was appointed on temporarily basis

Total years of experience -majority that (50%) of the staff nurses had total experience less than five years.

MAJORITY (75%) Staff nurses adequate knowledge on infection but aspect of sterilization process and control of infection average knowledge.

Assessment shows that 75% of the staff practicing isolation for infected patients in operation theatre and they are keeping correct sterilization time for different type of sterilization. Majority of the staff(75%) are practicing strict aseptic technique during surgery. They are practicing cleaning and washing procedure in operation theatre after ever operation .About 75% of the staff were doing fumigation every weekend. Majority of the staff nurses are practicing routine program in operation theatre.

About 65% of the staff nurses response that by appointing new staff they are managing the turnover and 15% response that by reducing number of staff they are managing the turnover. Some of them were respond that by increasing duty of the staff they are managing the turnover.

9. SUGGESTIONS FOR IMPROVEMENT

Periodic in-service education should be given on infection control practices in operation theater. Staff nurses one who is having interest in operation theater postings should be selected and sent for operation theater diploma courses. And after the training they should be posted in operation theater only. Every one year they should be sent for retraining programs for updating their knowledge .

A quality assurance committee under the hospital should be formed and they should inspect the operation theater twice in a week or monthly to assess the practices of the staff nurses in operation theater as well as the hygiene of the operation theater. A protocol should be maintain theater set up strict aseptic techniques sterilization techniques for each surgeries replacement of the article cleaning and washing ,fumigation etc. every weekend a culture swab should be taken from the operation theater to make sure that theater is free from infection.

A daily register should be maintained in operation theater to observe the occurrence of any surgical infections that is occurred after surgery.

Scope for further studies

This similar study can be conducted on a large sample.

A comparative study can be carried out among the nurses working in government and private hospitals regarding their knowledge infection control in operation theater.

An evaluative study can be conducted to find out effectiveness of an infection control standard and improvement on nurses knowledge and quality patient care. Same study can be done to assess the knowledge and practice of infection control among staff nurses working in other areas.

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